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ORISSA ELECTRICITY REGULATORY COMMISSION BIDYUT NIYAMAK BHAWAN UNIT-VIII, BHUBANESWAR-751 012

NOTIFICATION

The 29th August 2008

No. 17—OERC-Engg.- (Vol. V)-2005 – In exercise of the powers conferred by sub-section (zp) of Section 181(2), read with sub-section (h) of Section 86(1) of the Electricity Act, 2003, the Commission has made Orissa Grid Code (O.G.C.) Regulations, 2006. The said Regulation has been made effective from the 14th June 2006, the date of publication in the *Orissa Gazette* vide Extraordinary Gazette Notification No.819, dated the 14th June 2006. Subsequently, the said Regulation was amended vide Extraordinary *Orissa Gazette* No.556, dated the 24th March 2007. Thereafter, the 2nd Grid Co-ordination Committee meeting held on the 25th January 2008 suggested certain modification of the existing Regulations. Similarly, Central Electricity Regulatory Commission vide its order, dated the 5th May 2008 in petition Nos.10/2008, 11/2008 & 37/2008 suggested for certain amendments in the Regulations. Further, the order of the Commission (O.E.R.C.), dated the 13th March 2008 in case Nos.37/2007, 38/2007, 45/2007 & 47/2007 necessitated certain corrections in the existing Regulations. The Commission also received suggestions/opinions from the stakeholders regarding the proposed amendments.

Accordingly, after careful consideration the Commission hereby notifies the following amendments of the Orissa Grid Code (O.G.C.) Regulations, 2006 for information of the general public.

1. Short title and commencement

- (i) This Regulations may be called Orissa Grid Code (O.G.C.) (Amendment) Regulations, 2008.
- (ii) It shall come into force from the date of publication in the official Gazette.

2. Amendment to Regulation-1

The Regulation 1.19 (13) is amended as "A person to whom electricity is provided and who has a dedicated supply at 33 KV and above".

The Regulation 1.19 (88) is amended as "A committee of SLDC with members from all Agencies, which decides the operational aspects of the State grid as referred under Section 5.8(4)(i) of the O.G.C.

3. Amendment to Regulation-4

Regulation 4.11 may be amended as below:

Reliable and efficient speech and data communication systems shall be provided to facilitate necessary communication and data exchange, and supervision/control of the grid by the S.L.D.C., under normal and abnormal conditions. However, the S.C.A.D.A. communication facilities should be made available in every 220 KV Grid S/S by OPTCL. All Agencies including C.G.S. who are allowed open access shall provide systems to telemeter power system parameter such as flow, voltage and status of switches/ transformer taps, etc. in line with interface requirements and other guideline made available to the nearest SCADA interface point of the transmission licensee. The associated communication system to facilitate data flow up to nearest SCADA interface point of the transmission licensee, as the case may be, shall also be established by the concerned Agency as agreed by STU in Connection Agreement. All Agencies in Co-ordination with STU shall provide the required facilities at their respective ends and to the nearest SCADA interface point of the transmission licensee as agreed to in the Connection Agreement. However, the SCADA communication facilities should be made available in every 220 KV Grid S/S by OPTCL.

Regulation 4(13)(1)(d) may be amended as below:

"All Agencies connected to or planning to connect to STS would ensure providing of RTU and other communication equipment, as specified by STU, for sending real-time data to nearest SCADA interface point of the transmission licensee at least before date of commercial operation of the generating stations or substation/line being connected to STS."

Regulation 4.15(1) may be amended as below:

"Voltage may be 33 KV and above. Unless specifically agreed with the Transmission Licensee the Connection Point shall be the outgoing feeder gantry of Power Station switchyard. Metering point shall be at the outgoing feeder. All the terminal communication, protection and metering equipment owned by the generator within the perimeter of the generator's site should be maintained by the generator. The respective Users shall maintain other Users' equipment. From the outgoing feeder gantry onwards, the Transmission Licensee shall maintain all electrical equipment."

4. Amendment to Annexure-1 to Chapter -4

Annexure-1 to Chapter-4, (iii)(g)(v) of the Connection Agreement may be amended as below:

"Mode of communication connectivity with nearest SCADA interface point of the transmission licensee: Telephone/Fax/Carrier Communication/ Broadband Communication /Internet / Other developed mode of communication.

Transmission Licensee shall provide SCADA interface in every 220 KV Grid Substation.

5. Amendment to Regulation-5

Regulation 5.2(8) may be amended as below:

"Provision of protections and relay settings shall be co-ordinated periodically throughout the State grid, as per a plan to be separately finalized by the Protection Co-ordination Committee of the STU."

Regulation 5.2(9) may be amended as below:

"All Users shall also facilitate identification, installation and commissioning of System Protection Schemes (including inter-tripping and run-back) in the power system to protect against situations such as voltage collapse and cascade tripping. Such schemes would be finalized by the Protection Co-ordination Committee of the STU, and shall be kept in service. SLDC shall be promptly informed in case any of these are taken out of service."

Regulation 5.3(3)(c)(ii) may be amended as below:

All Users shall provide automatic under-frequency and df/dt load shedding in their respective systems, to arrest frequency decline that could result in a collapse/ disintegration of the grid, as per the plan separately finalised by the Protection Co-ordination Committee of the STU, and shall ensure its effective application to prevent cascade tripping of Generating Units in case of any contingency. All Users shall ensure that the above under frequency and df/dt load shedding/islanding schemes are functional. However, in case of extreme contingencies, these relays may be temporarily kept out of service with prior consent of SLDC, which shall independently check and keep a record of its findings.

6. Amendment to Regulation-6

Regulation 6.4(10) may be amended as below:

"For all outages of Generation and Transmission System, which may have an effect on the State grid, all Users shall co-operate with each other and co-ordinate their actions through Power System Operational Co-ordination Committee of the SLDC for outages foreseen sufficiently in advance and through SLDC (in all other cases), as per procedures finalized separately by this Committee. In particular, outages requiring restriction of ISGS/SGS/CGP generation and/or restriction of ISGS share which a Beneficiary can receive (and which may have a commercial implication) shall be planned carefully to achieve the best optimisation".

Regulation 6.4(13) may be amended as under:

"The STU shall install special energy meters on all inter connections between the Users/ Beneficiaries and other identified points for recording of actual net MWh interchanges and MVArh drawals as per relevant CEA Regulation on metering. The type of meters to be installed, metering scheme, metering capability, testing and calibration requirements and the scheme for collection and dissemination of metered data are detailed in Chapter-10. All concerned entities (in whose premises the special energy meters are installed) shall fully co-operate with the STU/SLDC and extend the necessary assistance for taking weekly meter readings by STU and transmitting them to the SLDC."

7. Amendment to Regulation-9

At the end of Regulation 9.3, the following paragraphs may be added:

"There shall be provision of distance protection schemes with carrier inter-tripping between the grid S/S of the STU/Transmission licensee and the users capable of injecting power to the transmission system. This should be used in case of Captive Generating Plants connected to the grid and for those Users connected to the STU/Transmission System through multiple feeders.

In case of users as indicated above distance protection schemes as per the guidelines of Indian Standard Specification (ISS/IEC) shall have to be provided both at the grid end as well as at the users end.

In case of all CGPs/IPPs connected to the grid substation of the Transmission Licensee, Users capable of injecting power to the transmission system at 33 KV and above (at STU's grid substation) shall provide Reverse Power Relays at the point of inter connection".

At the end of Regulation 9.7, the following paragraphs may be added:

- "3. In case of EHT consumers connected through single circuits by radial feeders there is no scope of back feeding to the system. Hence, there is no utility of a distance protection relay in respect of such consumers at the consumer end. However, there is need of distance protection scheme for all EHT feeders including radial feeders emanating from the grid substations at the grid S/S end.
- 4. The distance relay can be applied for the protection of short lines, Transformer feeders, to Tee lines, double circuit lines as well as it can be applied for single pole and triple pole auto reclosing.
- 5. The distance relay can be applied for 66/33 KV network also."

8. Amendment to Appendix-C.5

The heading of Appendix-C.5 may be amended as below:

"REFERENCE TO: CHAPTER-7 – MONITORING OF GENERATION AND DRAWAL OF POWER STATIONS OF 5 MW AND ABOVE."

By order of the Commission

N. C. MAHAPATRA

Secretary I/c